

The Examiner rejected claims 1 and 3-16 as unpatentable over Arai and Kobayashi under 35 U.S.C. §103(a). Applicant requests withdrawal of the rejections for clear error.

I. The Arai Reference is Not Analogous to the Claimed Invention

The Examiner's reliance on the Arai reference is clear error because Arai is nonanalogous prior art. As stated in MPEP Section 2141.01(a), a prior art patent is not analogous to the claimed invention if a person having ordinary skill would not reasonably be expected to look to that prior art for a solution to the problem with which the inventor was concerned.

The claimed invention produces a stable flame at a burner head. In stark contrast, Arai discloses a nozzle for spraying liquid. Using a nozzle to spray liquid is wholly incompatible with producing a stable flame. A person of ordinary skill in the art knows that liquid extinguishes a flame. It is unreasonable to expect a person of ordinary skill in the art to consider a liquid spray nozzle as pertinent to stabilizing a flame. The Arai reference is therefore not analogous to the claimed invention.

II. The Examiner Mischaracterizes the Arai Reference and Its Combination with Kobayashi

The Examiner also commits clear error in concluding that it would have been obvious "to incorporate the screen arrangement taught by Arai into the invention disclosed by Kobayashi, so as to provide a fine spray." This statement is clear error because it mischaracterizes the Arai reference and the resulting combination with Kobayashi.

Arai does not disclose a screen arrangement. To the contrary, Arai discloses a nozzle with elongated slit-shaped passages instead of a close array of discrete openings that would provide a fine spray through a screen. Since Kobayashi expressly calls for a mesh screen with just such an array of uniformly sized and shaped openings (column 5, lines 5-10), the

substitution of Arai's elongated slits, as proposed by the Examiner, is precluded rather than made obvious by the references.

III. The Analogous Prior Art Teaches Away from the Claimed Invention

The Examiner's combination of prior art references under 35 U.S.C. §103(a) is clear error because it omits and ignores prior art that teaches away from that combination. U.S. Patent No. 6,699,035 to Brooker, for example, teaches that a wedge wire structure "acts to extinguish a flame passing therethrough." Brooker emphasizes "the flame extinguishing capabilities of the gaps formed between the blunt surfaces 62 and 74 between adjacent windings of spiral wound wedge wire screen." This is explained fully in Applicant's Amendment filed on January 11, 2007.

Based on Brooker, a person of ordinary skill in the art would consider the structure of a wedge wire screen unsuitable for sustaining a stable flame. Instead of being guided to use that structure, a person skilled in the art would be guided away due to the structure's "flame extinguishing capabilities." Yet, such "flame extinguishing capabilities" have been overcome by the claimed invention. The teaching away in the prior art clearly shows that the claimed invention would not have been not obvious to a person of ordinary skill in the art.

IV. Conclusion

No one would consider a liquid spray nozzle as pertinent to flame stability. The Arai reference therefore is not analogous to the claimed invention. Furthermore, Arai and its combination with Kobayashi are mischaracterized in the final Office Action. Finally, the Examiner ignores the relevant prior art, which teaches away from the claimed invention. The Examiner thus fails to make a prima facie case for obviousness under 35 U.S.C. § 103(a).

Accordingly, Applicant requests withdrawal of the rejections in the final Office Action for clear error and requests allowance of claims 1 and 3-16.

Respectfully submitted,



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